# ORDER 450.1 ENVIRONMENTAL PROTECTION PROGRAM WORKSHOP

**OVERVIEW OF ORDER 450.1** 

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#### **BACKGROUND**

- Order 450.1 supercedes DOE Order 5400.1.
  - Issued in 1988
    - Command and control approach
    - New environmental requirements since then
  - Order 450.1 is a performance based order that allows sites the ability to tailor their EMS
- E.O. 13148 is the foundation for Order 450.1

#### **OBJECTIVES OF ORDER**

- Calls for implementing sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by DOE operations
- Advocates cost-effectively meeting or exceeding compliance with applicable laws, regulations and DOE requirements
- Calls for EMSs to be integrated into DOE's ISMS

#### ORDER REQUIREMENTS

- Specifically site ISMSs must include an EMS that
  - Provides for systematic planning,
    integrated execution, and evaluation of programs for
    - Public health and environmental protection,
    - Pollution prevention, and
    - Compliance with applicable environmental protection requirements

- Includes polices, procedures, and training to identify activities with significant environmental impacts, to manage, control, and mitigate the impacts of these activities, and to assess performance and implement corrective actions where needed.
- Includes measurable environmental goals, objectives, and targets that are reviewed annually and updated when appropriate.

- As part of integrating EMSs into site ISMSs, DOE elements must do the following.
  - Consider the following as applicable:
    - Conformity of DOE proposed action with State Implementation Plans to attain and maintain national ambient air quality standards,
    - Implementation of a watershed approach for surface water protection

- Implementation of a site-wide approach for groundwater protection,
- Protection of other natural resources including biota,
- Protection of site resources from wildland and operational fires, and
- Protection of cultural resources

- Promote the long-term stewardship of a site's natural and cultural resources throughout its operational, closure, and post-closure life cycle.

- Reduce or eliminate the generation of waste, the release of pollutants to the environment, and the use of Class I ozone-depleting substances (ODS)
- through source reduction, re-use, segregation, and recycling and by procuring recycled-content materials and environmentally preferable products and services.

-Ensure the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate, preoperational characterization and assessment, and effluent and surveillance monitoring.

#### RESPONSIBILITIES

- Ass't Sec'y for ES&H
  - Develop or revise, as needed existing environmental protection policies, guidance, etc. to--
    - develop guidance for ensuring that site ISMSs provide for EMSs that promote protection of the environment; and
    - Maximize the use of safe alternatives to, evaluate present and future uses of, and disseminate information regarding successful efforts to phase out ODS

 Serve as the Agency Environmental Executive pursuant to Executive Order 13101, "Greening the Government Through Waste Prevention, Recycling and Federal Acquisition."

- PSOs, Administrator for NNSA,
  Administrator for Power Administrations
  and DOE Operations/Field/Site Office
  Managers must:
  - Assess implementation of EMSs as a component of the implementation of DOE P 450.5, Line Environment, Safety and Health Oversight

- PSOs, Administrator for NNSA and Administrator for Power Administrations must:
  - Ensure that by 12/31/05 all sites under their purview have implemented the management systems requirements of the Order
  - Request Budget to implement order requirements and findings from oversight and self-assessment activities

- Ensure that sites under purview include sitespecific goals in their ISMS that contribute to the P2/E2 goals
- Ensure the development and implementation of cost-effective P2 programs that use life-cycle assessment concepts and practices in determining program ROI

- Evaluate P2 nominations and select and provide best nominees to EH for submittal to Closing the Circle Awards
- Ensure sites under their purview monitor progress towards meeting the P2 requirements of the Order

- DOE Operations/Field/Site Office Managers must:
  - Report by 12/31/05 to their CSO whether the EMS requirements of this Order have been integrated into ISMS by site contractors
  - Ensure site annual budgetary processes include funding to implement the Order

 Conduct operational assessments, such as P2 Opportunity Assessments of site operations

- Monitor progress toward meeting P2 requirements of Order and make available to EH
- Develop program to maximize the use of safe alternative to ODS
- Consider P2 in the specification and acquisition of supplies

- Conduct environmental monitoring to support site's ISMS
- Ensure the analytical work supporting environmental monitoring is implemented
  - Consistent system for collecting, assessing environmental data
  - Validated sampling and analysis of radionuclide samples
  - Integrated sampling approach

- Ensure contractor self assessment programs are established within DOE P 450.5
- Ensure that contractor ES&H performance objectives and measures include environmental elements - based on risks and impacts of activities
- Ensure that the CRD is incorporated in appropriate contracts

- Office of Independent Oversight and Performance Assurance
  - Evaluate the effectiveness of HQ and Field implementation of the requirements of this Order

- Office of Management, Budget and Evaluation
  - Include training on environmental requirements and EMSs in training programs
  - Include EMS implementation in position descriptions and performance evaluation of managers
  - Ensure procurement policies and procedures encourage acquisition of recycled-content and environmentally preferable products

- Incorporate P2E2 goals in DOE strategic and annual performance plans
- Ensure that requests for funding to implement Order requirements, made by PSOs, are considered in the annual budget request

#### Conclusions

- Managing environment properly
  - Can contribute to mission accomplishment
  - Makes good business sense
  - Is the right thing to do
  - Can help improve compliance with environmental laws and regulations

#### Conclusions

- This order allows sites to tailor their environmental programs to the nature, scale and unique conditions at their sites
- Gets out of the one size fits all box
- Helps integrate environment within the overall management system (ISMS)